

DRAFT DOCUMENT FOR DISCUSSION DURING EXAMINER INTERVIEW ONLY

Application No. 10/056,845

Second Supplemental Amendment dated August 17, 2005

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A low-temperature oxidation-reduction catalyst comprising:
a noble metal selected from the group consisting of platinum, palladium, gold, silver and rhodium;

a mixed-metal oxide layer comprising:

a first metal oxide which possesses more than one stable oxidation state including at least tin oxide;

a second metal oxide including at least zirconium oxide; and

~~said catalyst does not comprise any halogen components~~

a third metal oxide selected from the group consisting of cerium oxide, hafnium oxide, lanthanum oxide, and ruthenium oxide; and

said first, second and third metal oxide each being an active catalytic component of said mixed-metal oxide layer.

2. (Cancelled) ~~A low-temperature oxidation-reduction catalyst of claim 1, further comprising a third metal oxide selected from the group consisting of cerium oxide, hafnium oxide, lanthanum oxide, and ruthenium oxide.~~

3. (Currently Amended) A low-temperature oxidation-reduction catalyst of claim 2 1, wherein said third metal oxide is cerium oxide.

4. (Currently Amended) A low-temperature oxidation-reduction catalyst of claim 2 1, wherein said first metal oxide, second metal oxide, and third metal oxide have a mass ratio of about 1.0: 0.5: 0.5.

5. (Previously Presented) A low-temperature oxidation-reduction catalyst of claim 1, further comprising a promoter selected from the group consisting of oxides of the metals of the

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transition series of the periodic table of elements, wherein the promoter is present in an amount sufficient to provide from about 1 to about 12 atom percent of promoter metal to tin metal.

6. (Previously Presented) A low-temperature oxidation-reduction catalyst of claim 1, wherein said noble metal is from about 1 to about 50 weight percent, based on the total weight of the catalyst; and the first and second metal oxide are collectively from about 50 to about 99 weight percent, based on the total weight of the catalyst.

7. (Previously Presented) A low-temperature oxidation-reduction catalyst of claim 1, for use in the oxidation of carbon monoxide.

8. (Previously Presented) A low-temperature oxidation-reduction catalyst of claim 1 for use in the oxidation of formaldehyde.

9. (Previously Presented) A low-temperature oxidation-reduction catalyst of claim 1 for use in the oxidation of volatile organic compounds.

10. (Previously Presented) A low-temperature oxidation-reduction catalyst of claim 9, wherein the volatile organic compounds are hydrocarbons.

11. (Previously Presented) A low-temperature oxidation-reduction catalyst of claim 1 for use in the reduction of nitrogen oxide species.

12.-16 (Cancelled)